



Atty. Docket No.: CRYA 025/CIP
Information Disclosure Statement

IFW

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re: Application of: §
YIN CHEN, et al. § Group Art Unit: 1645
Serial No: 10/743,956 § Examiner:
Filed: December 23, 2003 § Atty. Docket No: CRYA,025/CIP
Title: OLIGODEOXYNUCLEOTIDE (ODN) LIBRARIES, THEIR USE IN SCREENING
FOR ANTIBACTERIAL AGENTS, AND CATALYTIC ODN SEQUENCE FOR USE
AS AN ANTIBACTERIAL AGENT

TO:

Commissioner of Patents and Trademarks
PO Box 1450
Alexandria, VA 22313-1450

CERTIFICATE OF MAILING (37 CFR 1.8a)

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope, addressed to: Commissioner for Patents, PO Box 1450, Alexandria, Virginia 22313-1450

Jennifer Budet 2.17.06
Name: Jennifer Budet Date

INFORMATION DISCLOSURE STATEMENT

Dear Sir:

In compliance with Applicant's duty of candor and good faith, Applicant files this Information Disclosure Statement in accordance with the provisions of 37 CFR §§1.97 and 1.98 to make the references listed on the attached disclosure form PTO/SB/08 of record in the captioned application.

Also, in compliance with § 1.97, an information disclosure statement is herein filed within one of the following time periods:

- ☒ (1) the information disclosure statement is filed in the early stages of prosecution:
- ☐ within three months of the filing date of a national application other than a continued prosecution application under §1.53(d);
 - ☐ within three months of the date of entry of the national stage as set forth in §1.491 in an international application;
 - ☒ before the mailing of a first Office action on the merits; OR
 - ☐ before the mailing of a first Office action after the filing of a request for continued examination under §1.114;

OR,

- ☐ (2) the information disclosure statement is filed before the mailing date of any of a final action under §1.113, a notice of allowance under §1.311, or an action that otherwise closes prosecution in the application, and it is accompanied by ONE OF:

- ☐ A statement as specified under 37 CFR 1.97(e):

☐ That each item of information contained in the information disclosure statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the information disclosure statement; OR

☐ That no item of information contained in the information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the person signing the certification after making reasonable inquiry, no item of information contained in the information disclosure statement was known to any individual designated in §1.56(c) more than three months prior to the filing of the information disclosure statement.

OR,

- ☐ The fee set forth in §1.17(p),

OR,

- ☐ (3) the information disclosure statement is filed on or before payment of the issue fee and is accompanied by:

- ☐ The statement specified under 37 CFR 1.97(e);

☐ That each item of information contained in the information disclosure statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the information disclosure statement; OR

☐ That no item of information contained in the information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the person signing the certification after making reasonable inquiry, no item of information contained in the information disclosure statement was known to any individual designated in § 1.56(c) more than three months prior to the filing of the information disclosure statement.

AND,

- ☐ The fee set forth in §1.17(p).

Also, in accordance with the above provisions, please find:

- ☒ A copy of an earlier filed Information Disclosure Statement from a related but earlier filed application containing similar subject matter which may be material to the patentability of this continuation, divisional or continuation-in-part application.

The earlier filed information disclosure statement was submitted for application:

SN: 10/453,410 (filed: June 3, 2003) Inventor: Yin Chen,
Applicant hereby requests consideration of the art previously cited on the copy provided.

- ☒ A copy of search reports provided by official examining authorities for applications containing similar subject matter which may be material to the patentability of this application.

The search reports were generated for applications:

USPTO Search - SN: 10/453,410 (mailed: Jan. 26, 2006),
USPTO Search - SN: 10/818,158 (mailed: Sept. 26, 2005),
Applicant hereby requests consideration of the art cited on the copies provided.

- ☒ An Information Disclosure Statement in accordance with §1.98(a)(1);

- ☐ Legible Copies in accordance with §1.98(a)(2) of:

- (i) each foreign patent;
- (ii) each publication or that portion which caused it to be listed, other than U.S. patents and U.S. patent application publications unless required by the Office;
- (iii) for each cited pending unpublished U.S. application, the application specification including the claims, and any drawing of the application, or that portion of the application which caused it to be listed including any claims directed to that portion; and
- (iv) all other information or that portion which caused it to be listed.

- ☐ In accordance with §1.98(a)(3), for documents not in the English language:

- ☐ a concise explanation of the relevance, as it is presently understood by the individual designated in §1.56(c) most knowledgeable about the content of the information, of each patent, publication, or other information listed that is not in the English language;

AND,

- ☐ a copy of the translation if a written English-language translation of a non-English-language document, or portion thereof, is within the possession, custody, or control of, or is readily available to any individual designated in §1.56(c).

- ☐ A Check in the amount of the fee set forth in 37 CFR §1.17(p) in accordance with 37 CFR §§1.97(c)(2) and 1.97(d)(2).

- ☒ A Revocation of Power of Attorney with New Power of Attorney and Change of Correspondence Address with

- ☒ A Statement under 37 CFR 3.73(b) and any required accompanying documents.

- ☒ A stamped, self-addressed Postcard acknowledging receipt of this document and the accompanying documents as listed herein above.

Please return the enclosed postcard, properly date stamped, to the undersigned attorney for Applicant upon receipt of the enclosed correspondence.

In the event a check covering the appropriate fee(s) is not enclosed, is unsigned, or is insufficient in amount, the Commissioner is authorized to charge Deposit Account No: 50-3748 (CRYA,025/CIP) for the amount of any deficiency.

Respectfully submitted,



Malcolm Skolnick

Reg. No. 33788

CytoGenix, Inc.

3100 Wilcrest Drive, Suite 140

Houston, Texas 77042

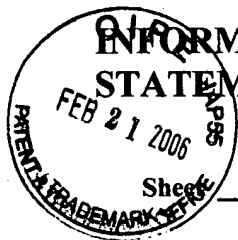
TEL: (713) 789-0070

FAX: (713) 789-0702

ATTORNEY FOR APPLICANT

Date:

15 Feb 2006



**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

Sheet 1 of 2

Application Number: 10/743,956
Filing Date: 12/23/2003
First Named Inventor: Yin CHEN
Art Unit: 1645
Examiner Name: _____
Attorney Docket Number: CRYA 025/CIP

NOTE: No new art over that cited in earlier US Patent Application: 10/453,410 (Atty Dkt No: CRYA,025)
– Copy of earlier filed IDS attached.

U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No.	Document Number	Publication date	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear

FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No.	Foreign Patent Document Country Code- Number-Kind Code	Publication date	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear

* Documents of Particular Note for Examiner.

EXAMINER SIGNATURE _____ DATE CONSIDERED _____



**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

Sheet 2 of 2

Application Number: 10/743,956
Filing Date: 12/23/2003
First Named Inventor: Yin CHEN
Art Unit: 1645
Examiner Name: _____
Attorney Docket Number: CRYA 025/CIP

NON PATENT LITERATURE DOCUMENTS

Examiner Initials	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²

* Documents of Particular Note for Examiner.

EXAMINER
SIGNATURE _____ DATE
CONSIDERED _____



INFORMATION DISCLOSURE STATEMENT BY APPLICANT

Page 1 of 9

Application Number: 10/453,410
Filing Date: 06/03/2003
First Named Inventor: Yin CHEN
Art Unit: 1639
Examiner Name: Christopher M. Gross
Attorney Docket Number: CRYA 025

U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No.	Document Number	Publication date	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
	1	US - 5,442,049	08-15-1995	ANDERSON	
	2	US - 5,843,738	12-01-1998	BENNETT	
	3	US - 6,054,299	04-25-2000	CONRAD	
	4	US - 5,874,281	02-23-1999	DATTA GUPTA	
	5	US - 5,514,577	05-07-1996	DRAPER	
	6	US - 5,098,890	03-24-1992	GEWIRTZ	
	7	US - 6,303,376	10-16-2001	GLAZER	
		US-2003/0148352	08-07-2003	GLAZER	
	8	US - 5,837,289	11-17-1998	GRASELA	
	9	US - 5,756,291	05-26-1998	GRIFFIN, et al.	
	10	US - 5,190,931	03-02-1993	INOUE	
	11	US - 5,208,149	05-04-1993	INOUE [Div '931]	
	12	US - 5,272,065	12-21-1993	INOUE [Con '931]	
	13	US - 5,807,718	09-15-1998	JOYCE	
	14	US - 5,919,677	07-06-1999	LUDWIG	
	15	US - 5,294,533	03-15-1994	LUPSKI and KATZ	
	16	US - 5,436,141	07-25-1995	MIYATA, et al.	
	17	*US - 6,190,866	02-20-2001	NIELSEN, et al.	
	18	US - 5,714,323	02-03-1998	OHSHIMA, INOUE, et al.	
	19	*US - 5,503,978	04-02-1996	SCHNEIDER, et al.	
	20	*US - 6,057,367	05-02-2000	STAMLER, et al.	
	21	US - 5,840,867	11-24-1998	TOOLE, et al.	

FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No.	Foreign Patent Document Country Code- Number-Kind Code	Publication date	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
	22	WO 94/01550	01-20-1994	AGRAWAL	
	23	WO 00/22114	04-20-2000	CONRAD	

* Documents of Particular Note for Examiner.

EXAMINER
SIGNATURE _____

DATE
CONSIDERED _____

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

Sheet 2 of 9

Application Number: 10/453,410
 Filing Date: 06/03/2003
 First Named Inventor: Yin CHEN
 Art Unit: 1639
 Examiner Name: Christopher M. Gross
 Attorney Docket Number: CRYA 025

Examiner Initials*	Cite No.	Foreign Patent Document	Publication date	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Country Code- Number-Kind Code			
	24	WO 01/25419	04-12-2001	CONRAD and CHEN	
	25	EP 0 562 206 B1	09-29-1993	INOUE, et al.	
	26	GB 2319773	06-03-1998	LEWIN and MAYNARD	
	27	WO 94/13689	06-23-1994	MILLER	
	28	WO 95/35369	12-28-1995	MILLER	
	29	EP 0 532 380 B1	03-17-1993	MIYATA, et al.	
	30	WO 95/29993	11-09-1995	NABEL	
	31	EP 0 530 112 B1	03-03-1993	OHSHIMA, INOUE and INOUE	
	32	WO 94/20639	09-15-1994	OHSHIMA, INOUE, et al.	
	33	WO 00/22113	04-20-2000	SKILLERN	
	34	WO 94/23026	10-13-1994	VASSEUR	

* Documents of Particular Note for Examiner.

EXAMINER
SIGNATURE _____

DATE
CONSIDERED _____

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

Sheet 3 of 9

Application Number: 10/453,410
Filing Date: 06/03/2003
First Named Inventor: Yin CHEN
Art Unit: 1639
Examiner Name: Christopher M. Gross
Attorney Docket Number: CRYA 025

NON PATENT LITERATURE DOCUMENTS

Examiner Initials	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
	35	AKHAR, S., HUGHES, ... SAYYED, Adv. Drug Delivery, 44: 3-21, 2000 (approx. Aug.), The Delivery of Antisense Therapeutics	
	36	BAERTSCHI, A., Molecular and Cellular Endocrinology, 101: R15-R24, 1994 (approx. Feb.), Antisense oligonucleotide strategies in physiology	
	37	BEAL & DERVAN, Science, 251 (4999): 1360-1363, 1991 (Mar 15), Second Structural Motif for Recognition of DNA by Oligonucleotide-Directed Triple Helix Formation	
	38	BEGER, C., PIERCE, et al., PNAS, 98 (1): 130-135, 2001 (Jan 2), Identification of Id4 as a regular of BRCA1 expression by using a ribozyme-library-based inverse genomics approach	
	39	BEGGS, J.D. Nature 275: 104-109, 1978 (Sept 14), Transformation of Yeast by a Replicating Hybrid Plasmid	
	40	BELL, D., MORRISON, and VANDENBYGAART, J. Clin. Invest., 85: 1487, 1990 (May), Immunogenic DNA-related factors	
	41	BLACKWELL, T.K. and WEINTRAUB, Science, 250 (4984): 1104-1110, 1990 (Nov 23), Differences and Similarities in DNA-Binding Preferences of MyoD and E2A Protein Complexes Revealed by Binding Site Selection	
	42	BLACKWELL, T.K., KRETZNER, ... WEINTRAUB, Science, 250 (4984): 1149-1152, 1990 (Nov 23), Sequence-Specific DNA Binding by the c-myc Protein	
	43	BREAKER, R. and JOYCE, Chem. & Biol., 1: 223-229, 1994 (Dec.), A DNA enzyme that cleaves RNA	
	44	BREAKER, R. and JOYCE, Chem. & Biol., 2: 655-660, 1995 (Oct), A DNA enzyme with Mg(2+)-dependent RNA phosphoesterase activity	
	45	BREAKER, R.R., Nature Biotechnology, 17: 422-423, 1999 (May), Catalytic DNA: In training and seeking employment	
	46	BREAKER, R.R., Science, 290: 2095-2096, 2000 (Dec 15), Making Catalytic DNAs	
	47	CAIRNS, M., SARAVOLAC, and SUN, Current Drug Targets, 3: 269-279, 2002, Catalytic DNA: A Novel Tool for Gene Suppression	
	48	CAIRNS, M., HOPKINS, ... SUN, Nature Biotechnology, 17: 480-486, 1999 (approx April), Target site selection for an RNA-cleaving catalytic DNA	
	49	CAPECCHI, M., Science, 244 (4910): 1288-1292, 1989 (June 16), Altering the Genome by Homologous Recombination	
	50	CARMI, N., SHULTZ, and BREAKER, Chem. & Biol., 3: 1039-1046, 1996 (Dec), In vitro selection of self-cleaving DNAs	
	51	CARMI, N., BALKHI and BREAKER, PNAS, 95 (5): 2233-2237, 1998 (Mar 3), Cleaving DNA with DNA	

* Documents of Particular Note for Examiner.

EXAMINER
SIGNATURE _____

DATE
CONSIDERED _____

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

Sheet 4 of 9

Application Number: 10/453,410
Filing Date: 06/03/2003
First Named Inventor: Yin CHEN
Art Unit: 1639
Examiner Name: Christopher M. Gross
Attorney Docket Number: CRYA 025

Examiner Initials	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
	52	CHAN, P., LIN, ... GLAZER, J. Biol. Chem., 274 (17): 11541-11548, 1999 (Apr 23), Targeted Correction of an Episomal Gene in Mammalian Cells by a Short DNA Fragment Tethered to a Triplex-forming Oligonucleotide	
	53	CHAN, P. and GLAZER, J. Mol. Med., 75: 267-282, 1997 (approx Jan), Triplex DNA: Fundamentals, Advances and Potential Applications for Gene Therapy	
	54	CHEN, Y. and McMICKEN, Gene Therapy, 10: 1776-1780, 2003 (approx May), Intracellular Production of DNA Enzyme by a Novel Single-Stranded DNA Expression Vector	
	55	*CHEN, Y., JI, ... CONRAD, Antisense & Nucleic Acid Drug Development, 10 (6): 415-422, 2000 (~ Sept), In vivo expression of single-stranded DNA in mammalian cells with DNA enzyme sequences targeted to C-raf	
	56	CHEN, Y., JI, and CONRAD, BioTechniques, 34 (1): 167-171, 2003 (Jan), Expression of ssDNA in Mammalian Cells	
	57	*CHEN, Y., Expert Opin. Biol. Ther., 2 (7): 735-740, 2002, A novel single-stranded DNA expression vector	
	58	CROOKE, S. T., Biochim. Biophys. Acta, 1489: 31-44, 1999 (approx July), Molecular Mechanisms of Action of Antisense Drugs	
	59	D'SOUZA, D. and KOOL, Journal of Biomolecular Structure & Dynamics, 10 (1): 141-151, 1992 (approx May), Strong Binding of Single-stranded DNA by Stem-loop Oligonucleotides	
	60	*EMILSSON, G.M., et al., Cell. Mol. Life Sci., 59: 596-607, 2002, Deoxyribozymes: new activities and new applications	
	61	FARIA, M., WOOD, ... GIOVANNANGELI, PNAS, 97 (8): 3862-3867, 2000 (April), Targeted Inhibition of Transcription Elongation in Cells Mediated by Triplex-Forming Oligonucleotides	
	62	FARUQI, A., DATTA, ... GLAZER, Mol. Cell. Biol., 20 (3): 990-1000, 2000 (Feb), Triple-Helix Formation induces Recombination in Mammalian Cells via a Nucleotide Excision Repair-Dependent Pathway	
	63	FASSATI, A., and GOFF, S., Journal of Virology, 73 (11): 8919-8925, 1999 (Nov), Characterization of Intracellular Reverse Transcription Complexes of Moloney Murine Leukemia Virus	
	64	FAULHAMMER, D. and FAMULOK, Jour. Molec. Bio., 269: 188-202, 1997 (approx May), Characterization and Divalent Metal Ion Dependence of In Vitro SELECTED Deoxyribozymes which Cleave DNA/ RNA Chimeric Oligonucleotides	
	65	FORSYTH, R., HASELBACK ... ZYSKIND, Molecular Microbiology, 43 (6): 1387-1400, 2002 (approx Feb.), A genome-wide strategy for the identification of essential genes in Staphylococcus aureus	
	66	FRAUENDORF, A., and ENGELS, Bioorg. Med. Chem. Lett., 4 (8): 1019-1024, 1994 (approx Jan), Interaction of Linear and Folded Modified Antisense Oligonucleotides with Sequences Containing Secondary Structure Elements	
	67	GIOVANNANGELI, C. and HELENE, Curr. Opin. Mol. Ther., 2 (3): 288-296, 2000, Triplex-forming molecules for modulation of DNA information processing	

* Documents of Particular Note for Examiner.

EXAMINER
SIGNATURE _____

DATE
CONSIDERED _____

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

Sheet 5 of 9

Application Number: 10/453,410
Filing Date: 06/03/2003
First Named Inventor: Yin CHEN
Art Unit: 1639
Examiner Name: Christopher M. Gross
Attorney Docket Number: CRYA 025

Examiner Initials	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
	68	GORMAN, L., SUTER ... KOLE, PNAS, 95: 4929-4934, 1998 (April), Stable Alteration of Pre-mRNA Splicing Patterns by Modified U7 Small Nuclear RNAs	
	69	GUO, J., WU ... LEVIN, Biochemistry, 34 (15): 5018-5029, 1995 (approx March), Defects in Primer-Template Binding, Processive DNA Synthesis, and RNase H Activity Associated with Chimeric Reverse Transcriptases Having the Murine Leukemia Virus Polymerase Domain Joined to Escherichia coli RNase H	
	70	HANSON, K. and SEDIVY, Mol. Cell. Biol., 15 (1): 45-51, 1995 (Jan), Analysis of Biological Selections for High-Efficiency Gene Targeting	
	71	HARTH, G., SAMECNIK ... HORWITZ, PNAS, 97 (1): 418-423, 2000 (Jan), Treatment of Mycobacterium tuberculosis with antisense oligonucleotides to glutamine synthetase mRNA inhibits glutamine synthetase activity, formation of the poly-L-glutamate/ glutamine cell wall structure, and bacterial replication	
	72	HELENE, C. and TOULME, J., Biochimica et Biophysica Acta., 1049: 99-125, 1990 (approx April), Specific regulation of gene expression by antisense, sense and antigene nucleic acids	
	73	INOUE, M., MAO ... INOUE, Oligonucleotides as therapeutic agents. Wiley, Chichester (Ciba Foundation Symposium 209), 224-234, 1997, In vivo production of oligodeoxyribonucleotides of specific sequences: application to antisense DNA	
	74	INOUE, M., and INOUE, Trends in Biochem. Science, 16 (1): 18-21, 1991 (Jan), Retroelements in bacteria	
	75	INOUE, S., and INOUE, Curr. Opin. Genet. Dev., 3 (5): 713-718, 1993, The retron: a bacterial retroelement required for the synthesis of msDNA	
	76	INOUE, S., HSU ... INOUE, Journal of Biological Chemistry, 274 (44): 31236-31244, 1999 (Oct 29), Highly Specific Recognition of Primer RNA Structures for 2'-OH Priming Reaction by Bacterial Reverse Transcriptases	
	77	JAMES, H. & GIBSON, I., Jour of The American Society of Hematology, Blood 91 (2): 371-382, 1998 (Jan 15), The Therapeutic Potential of Ribozymes	
	78	JAYAYARAMAN, K., PARLAND ... TS'O, PNAS, 78 (3): 1537-1541, 1981 (March), Selective Inhibition of Escherichia coli Protein Synthesis and Growth Nonionic Oligonucleotides Complementary to the 3 Prime End of 16S rRNA	
	79	JI, Y., ZHANG ... ROSENBERG, Science, 293: 2266-2269, 2001 (Sept 21), Identification of Critical Staphylococcal Genes Using Conditional Phenotypes Generated by Antisense RNA	
	80	JONES, N., RIGBY and ZIFF, Genes Dev., 2: 267-281, 1988, Trans-acting protein factors and the regulation of eukaryotic transcription: lessons from studies on DNA tumor viruses	
	81	JOYCE, G., Gene, 82: 83-87, 1989 (approx Feb), Amplification, mutation and selection of catalytic RNA	
	82	KIKUCHI, Y., HIRAI ... HISHINUMA, EMBO Jour, 4 (7): 1881-1886, 1985 (approx July), Hairpin Plasmid - A Novel Linear DNA of Perfect Hairpin Structure	

* Documents of Particular Note for Examiner.

EXAMINER
SIGNATURE _____

DATE
CONSIDERED _____

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

Sheet 6 of 9

Application Number: 10/453,410
 Filing Date: 06/03/2003
 First Named Inventor: Yin CHEN
 Art Unit: 1639
 Examiner Name: Christopher M. Gross
 Attorney Docket Number: CRYA 025

Examiner Initials	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
	83	KIM, H-G, REDDOCH ... MILLER, Biochemistry, 37: 2299-2304, 1998 (Feb 6), Inhibition of Transcription of the Human c-myc Protooncogene by Intermolecular Triplex	
	84	KLASENS, B., HUTHOFF ... BERKHOUT, Biochimica et Biophysica Acta, 1444: 355-370, 1999, The effect of template RNA structure on elongation by HIV-1 reverse transcriptase	
	85	KRUGER, M., BEGER ... WONG-STAAAL, PNAS, 97 (15): 8566-8571, 2000 (July 18), Identification of eIF2B and eIF2 as cofactors of hepatitis C virus internal ribosome entry site-mediated translation using a functional genomics approach	
	86	KUSUNOKI, A., MIYANO-KUROSAKI and TAKAKU, Biochemical and Biophysical Research Communications, 301: 535-539, 2003 (approx Feb), A novel single-stranded DNA enzyme expression system using HIV-1 reverse transcriptase	
	87	LAMPSON, B., INOUE, S. and INOUE, M., Prog. Nuc. Acid Res. Mol. Biol., 40: 1-24, 1991, The msDNA of Bacteria	
	88	LAMPSON, B., INOUE, M. and INOUE, S., Prog. Nuc. Acid Res. Mol. Biol., 67: 65-91, 2001, The msDNA of Bacteria	
	89	LAMPSON, B., SUN ... INOUE, Research Articles, Science, 243: 1033-1038, 1989 (Feb 4), Reverse Transcriptase in a Clinical Strain of Escherichia coli: Production of Branched RNA-Linked msDNA	
	90	LAU, Q., BRUSSELBACH and MULLER, Oncogene, 16: 1899-1902, 1998 (approx Jan), Abrogation of c-Raf expression induces apoptosis in tumor cells	
	91	LEDLEY, F., Human Gene Therapy, 6: 1129-1144, 1995 (Sept), Nonviral Gene Therapy: The Promise of Genes as Pharmaceutical Products	
	92	LI, Q-X, ROBBINS ... BARBER, Nucleic Acids Research, 28 (13): 2605-2612, 2000 (approx June), A novel functional genomics approach identifies mTERT as a suppressor of fibroblast transformation	
	93	LI, Y., and BREAKER, R., PNAS, 96: 2746-2751, 1999 (March), Phosphorylating DNA with DNA	
	94	LI, Y., HUI ... SHAW, J. Virology, 66 (11): 6587-6600, 1992 (Nov), Complete Nucleotide Sequence, Genome Organization, and Biological Properties of Human Immunodeficiency Virus Type 1 In Vivo: Evidence for Limited Defectiveness and Complementation	
	95	LIEBER, A. and STRAUSS, MCB, 15(1): 540-551, 1995 (Jan), Selection of Efficient Cleavage Sites in Target RNAs by Using a Ribozyme Expression Library	
	96	LIMA, T. and LIM, D., Plasmid, 38: 25-33, 1997 (approx July), A Novel Retron That Produces RNA-less msDNA in Escherichia coli Using Reverse Transcriptase	
	97	MAO, JAU-REN, INOUE and INOUE, J Bact, 179 (24): 7865-7868, 1997 (Dec), msDNA-Ec48, the smallest Multicopy Single-Stranded DNA from Escherichia coli	

* Documents of Particular Note for Examiner.

EXAMINER
SIGNATURE _____

DATE
CONSIDERED _____

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

Sheet 7 of 9

Application Number: 10/453,410
Filing Date: 06/03/2003
First Named Inventor: Yin CHEN
Art Unit: 1639
Examiner Name: Christopher M. Gross
Attorney Docket Number: CRYA 025

Examiner Initials	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
	98	MAO, JAU-REN, SHIMADA ... INOUE, JBC, 270 (34): 19684-19687, 1995 (Aug 25), Gene regulation by Antisense DNA produced in Vivo	
	99	MARQUET, R., ISEL ... EHRESMANN, Biochimie, 77: 113-124, 1995 (approx Oct), tRNAs as primer of reverse transcriptases	
	100	McMICKEN, H., BATES and CHEN, Cancer Gene Therapy, 10: 867-869, 2003 (approx July), Antiproliferative activity of G-quartet-containing oligonucleotides generated by a novel single-stranded DNA expression system	
	101	MILLER, P., Oligodeoxynucleotides: Antisense Inhibitors of Gene Expression, CRC Press: Boca Raton, J. Cohen (ed.), 79-95, 1989, Non-Ionic Antisense Oligonucleotides	
	102	MIROCHNITCHENKO, O., INOUE and INOUE, JBC, 269 (4): 2380-2383, 1994 (Jan28), Production of single-stranded DNA in mammalian cells by means of a bacterial retron	
	103	MIYATA, S., OHSHIMA ... INOUE, PNAS, 89: 5735-5739, 1992 (approx May), In vivo production of a stable single-stranded cDNA in Saccharomyces cerevisiae by means of a bacterial retron	
	104	MONIA, B., JOHNSTON ... FABBRO, Nature Medicine, 2 (6): 668-675, 1996 (June), Antitumor activity of a phosphorothioate antisense oligodeoxynucleotide targeted against C-raf kinase	
	105	MOSER, H. and DERVAN, Science, 238: 645-650, 1987 (Oct 30), Sequence-Specific Cleavage of Double Helical DNA by Triple Helix Formation	
	106	*NIELSEN, P., Expert Opinion on Investigational Drugs, 10(2): 331-341, 2001, Peptide nucleic acids as antibacterial agents via the antisense principle	
	107	NOONBERG, S., SCOTT ... HUNT, Nucleic Acids Res., 22 (14): 2830-2836, 1994 (approx Aug), In Vivo Generation of Highly Abundant Sequence-Specific Oligonucleotides for Antisense and Triplex Gene Regulation	
	108	O'DWYER, P., STEVENSON ... YAO, Clinical Cancer Res., 5: 3977-3982, 1999 (Dec), C-raf-1 depletion and tumor responses in patients treated with the c-raf-1 antisense oligonucleotide ISIS 5132 (CGP 69846A)	
	109	OFFRINGA, R., GEBEL ... HERRLICH, Cell, 62: 527-538, 1990 (Aug 10), A Novel Function of the Transforming Domain of E1a: Repression of AP-1 Activity	
	110	OHSHIMA, A., INOUE and INOUE, PNAS, 89 (3): 1016-1020, 1992 (Feb), In Vivo Duplication of Genetic Elements by the Formation of Stem-Loop DNA Without an RNA Intermediate	
	111	PETROPOULOS, C., J.M Coffin (Ed.), Retroviruses, 757-805, Appendix 2, New York: Cold Springs Harbor Press, 1997, Retroviral taxonomy, protein structure, sequences and genetic maps	
	112	PIERCE, M. and RUFFNER, Nucleic Acids Research, 26 (22): 5093-5101, 1998 (approx Nov), Construction of a directed hammerhead ribozyme library: towards the identification of optimal target sites for antisense-mediated gene inhibition	
	113	*RAPAPORT, E., et al., Proc. Natl. Acad. Sci., 93: 709-713, 1996 (Jan), Antimycobacterial activities of antisense oligodeoxynucleotide phosphorothioates in drug-resistant strains	
	114	RICE, S. and LAMPSON, Virus Genes, 11 (2-3): 23-32, 1996, Bacterial reverse transcriptase and msDNA	

* Documents of Particular Note for Examiner.

EXAMINER
SIGNATURE _____

DATE
CONSIDERED _____

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

Sheet 8 of 9

Application Number: 10/453,410
Filing Date: 06/03/2003
First Named Inventor: Yin CHEN
Art Unit: 1639
Examiner Name: Christopher M. Gross
Attorney Docket Number: CRYA 025

Examiner Initials	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
	115	ROTH, A. and BREAKER, PNAS, 95: 6027-6031, 1998 (May), An amino acid as a cofactor for a catalytic polynucleotide	
	116	SANTIAGO, F., LOWE ... KHACHIGIAN, Nature Medicine, 5 (11): 1264-1269, 1999 (Nov), New DNA enzyme targeting Egr-1 mRNA inhibits vascular smooth muscle proliferation and regrowth after injury	
	117	SANTORO, S. W. and JOYCE, G. F., Biochemistry, 37(38): 13330-13342, 1998 (Aug 29), Mechanism and Utility of an RNA-Cleaving DNA Enzyme	
	118	SANTORO, S. W. and JOYCE, G. F., PNAS, 94: 4262-4266, 1997 (April), A general purpose RNA-cleaving DNA enzyme	
	119	*SCHLAAK, J.F., et al., Scand. J. Immunol., 54: 396-403, 2001, Antisense Phosphorothioate Oligonucleotides to the p65 Subunit of NF-kB Abrogate Fulminant Septic Shock Induced by <i>S. Typhimurium</i> in Mice	
	120	SCHLEEF, M., SCHMIDT and FLASCHEL, Brown, Cichutek, Robertson (eds): Plasmid DNA for Pharmaceutical Applications, Dev. Biol. (Basel), 104: 25-31, 2000, Development and Clinical Progress of DNA Vaccines	
	121	*SEIDMAN, C., et al., Current Protocols in Molecular Biology, Unit 1.8: 1.8.1-1.8.10, 1997, Introduction of Plasmid DNA into Cells	
	122	SEN, D. and GEYER, Curr. Opin. Chem. Biol., 2: 680-687, 1998, DNA enzymes	
	123	SHEVELEV, A., BURFEIND ... ILAN, Cancer Gene Therapy, 4 (2): 105-112, 1997 (approx Jan), Potential Triple Helix-Mediated Inhibition of IGF-I Gene Expression Significantly Reduces Tumorigenicity of Glioblastoma in an Animal Model	
	124	SIMONS, R. and KLECKNER, Annu. Rev. Genet., 22: 567-600, 1988, Biological Regulation by Antisense RNA in Prokaryotes	
	125	SUN, L-Q, CAIRNES ... KING, Jour of Biological Chemistry, 274(24): 17236-17241, 1999 (June 11), Suppression of Smooth Muscle Cell Proliferation by a c-myc RNA-cleaving Deoxyribozyme	
	126	TRAVISANO, M. and INOUE, Trends in Microbiology, 3 (6): 209-211, 1995 (June), Retrons: retroelements of no known function	
	127	TUREK, C. and GOLD, Science, 249 (4968): 505-510, 1990 (Aug 3), Systematic Evolution of Ligands by Exponential Enrichment: RNA Ligands to Bacteriophage T4 DNA Polymerase	
	128	UHLMAN, E., Expert Opinion on Biological Therapy, 1 (2): 319-328, 2001 (approx Jan), Oligonucleotide Technologies: Synthesis, Production, Regulation and Applications	
	129	VARMUS, H. and BROWN, Mobile DNA, M.M. Howe and D. E. Berg (eds.), American Society for Microbiology: Washington, D.C., 53-108, 1989, Retroviruses	
	130	VASQUEZ, K., NARAYANAN and GLAZER, Science, 290: 530-533, 2000 (Oct 20), Specific mutations induced by triplex-forming oligonucleotides in mice	
	131	VIEIRA, J. and MESSING, Methods in Enzymology, 153: 3-11, 1987, Production of single-stranded plasmid DNA	

* Documents of Particular Note for Examiner.

EXAMINER
SIGNATURE _____

DATE
CONSIDERED _____

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

Sheet 9 of 9

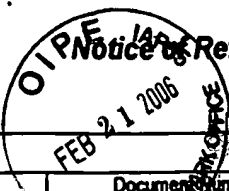
Application Number: 10/453,410
 Filing Date: 06/03/2003
 First Named Inventor: Yin CHEN
 Art Unit: 1639
 Examiner Name: Christopher M. Gross
 Attorney Docket Number: CRYA 025

Examiner Initials	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
	132	WANG, G., LEVY ... GLAZER, Mol. Cell. Biol., 15 (3): 1759-1768, 1995 (March), Targeted mutagenesis in mammalian cells mediated by intracellular triple helix formation	
	133	WANG, G., SEIDMAN and GLAZER, Science, 271 (5250): 802-805, 1996 (Feb 9), Mutagenesis in Mammalian Cells Induced by Triple Helix Formation and Transcription-Coupled Repair	
	134	WEINER, A., DEININGER and EFSTRATIADIS, Ann. Rev. Biochem., 55: 631-661, 1986, Nonviral Retroposons: Genes, Pseudogenes, and Transposable Elements Generated by the Reverse Flow of Genetic Information	
	135	WELCH, P., MARCUSSEON ... BARBER, Genomics, 66: 274-283, 2000 (approx June), Identification and Validation of a Gene Involved in Anchorage-Independent Cell Growth Control Using a Library of Randomized Hairpin Ribozymes	
	136	WU, W., HENDERSON ... LEVIN, Journal of Virology, 70 (10): 7132-7142, 1996 (Oct), Human Immunodeficiency Virus Type 1 Nucleocapsid Protein Reduces Reverse Transcriptase Pausing at a Secondary Structure near the Murine Leukemia Virus Polypurine Tract	
	137	WU, Y., YU ... SNYDER, Human Gene Therapy, 10: 2847-2857, 1999 (Nov 20), Inhibition of bcr-abl Oncogene Expression by Novel Deoxyribozymes (DNAzymes)	
	138	ZUKER, M., Science, 244 (4900): 48-52, 1989 (Apr 7), On finding all suboptimal foldings of an RNA molecule	

* Documents of Particular Note for Examiner.

EXAMINER
SIGNATURE _____

DATE
CONSIDERED _____

 Notice of References Cited	Application/Control No. 10/818,158	Applicant(s)/Patent Under Reexamination CHEN ET AL	
	Examiner Christopher M. Gross	Art Unit 1639	Page 1 of 1

U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
	A	US-6,190,866	02-2001	Nielsen et al.	435/6
	B	US-6,057,387	05-2000	Stamler et al.	514/581
	C	US-			
	D	US-			
	E	US-			
	F	US-			
	G	US-			
	H	US-			
	I	US-			
	J	US-			
	K	US-			
	L	US-			
	M	US-			

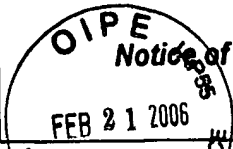
FOREIGN PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	Classification
	N					
	O					
	P					
	Q					
	R					
	S					
	T					

NON-PATENT DOCUMENTS

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
	U	Niesen, Peptide nucleic acids as antibacterial agents via the antisense principle. Exp. Opin. Invest. Drugs 10:337-339 2001.
	V	Schlaak, et al. Antisense phosphorothioate oligonucleotides to the p65 subunit of NF-kappaB abrogate fulminant septic shock induced by S. typhimurium in mice, Scand J Immunol. 54:399-400 2001.
	W	Seidman, et al. Introduction of plasmid DNA into cells IN Current Protocols in Molecular Biology Unit 1.8 1997.
	X	Rapaport, et al. Antimycobacterial activities of antisense oligodeoxynucleotide phosphorothioates in drug resistant strains. PNAS 93:709 1996.

*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

	Application/Control No. 10/453,410	Applicant(s)/Patent Under Reexamination CHEN ET AL.	
	Examiner Christopher M. Gross	Art Unit 1639	Page 1 of 1

U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
*	A	US-5,503,978	04-1998	Schneider et al.	435/8
	B	US-			
	C	US-			
	D	US-			
	E	US-			
	F	US-			
	G	US-			
	H	US-			
	I	US-			
	J	US-			
	K	US-			
	L	US-			
	M	US-			

FOREIGN PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	Classification
	N					
	O					
	P					
	Q					
	R					
	S					
	T					

NON-PATENT DOCUMENTS

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
	U	Emilsson et al. 2002 Deoxyribozymes: new activities and new applications. Cellualr and Molecular Life Sciences 597-607
	V	Chen et al. 2000 In vivo expression of single-stranded DNA in mammalian cells with DNA enzyme sequences targetes to C-raf. Antisense and Nucleic Acid Drug Development. 10:415-422
	W	Chen 2002 A novel single-stranded DNA expression vector. Expert Opin. Biol. Ther. 2:735-740.
	X	

*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.